# *Erectopus*

***Erectopus*** is a basal allosauroid theropod from the Lower Cretaceous of France.


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## Etymology

The etymology of *Erectopus* is based on the structure of the foot (Latin *erectus* = "upright" + Greek *pous* = "foot"). The specific name *superbus* means "proud" in Latin.

## History

The material comprising the type series was discovered in the late 19th century from the Phosphate-bearing beds of La Penthiève (*Mammilatum* Zone; lower Albian) at Louppy-le-Château in eastern France, which have also produced remains of plesiosaurs, ichthyosaurs, and crocodiles. The fossils originally resided in the private collection of Louis Pierson. The first, two teeth and a vertebra, were first described by Charles Barrois in 1875. After more remains had been found, in 1882 Henri-Émile Sauvage made them the basis for a new taxon, *Megalosaurus superbus*. In 1923, the material was redescribed by Friedrich von Huene (1875–1969), who argued that it could not be included within the genus *Megalosaurus* and created for the Pierson theropod a separate genus, naming the species *Erectopus superbus*. In 1932 von Huene concluded that the original fossils described by Barrois were not necessarily of the same species as the later finds. Assuming that Sauvage had used the former as the holotype of *Megalosaurus superbus*, he therefore created another species: *Erectopus sauvagei*. Von Huene even declined to use the generic name *Erectopus* for the first species, indicating it as "Gen. indeterm. *superbus*", which however does not constitute a valid name.

Subsequently, the Pierson collection was dispersed after the death of its owner and the holotype was long believed lost to science. However, casts of some of the bones have been located in the

***Erectopus***

**Temporal range: Early Cretaceous, Albian**

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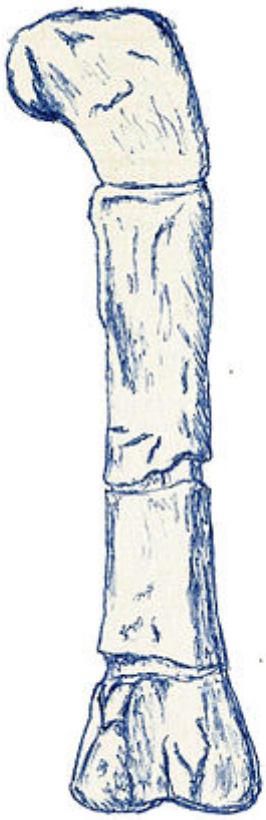

Femur

| **Scientific classification** | |
|---|---|
| Kingdom: | Animalia |
| Phylum: | Chordata |
| *Clade*: | Dinosauria |
| *Clade*: | Saurischia |
| *Clade*: | Theropoda |
| Infraorder: | †Carnosauria |
| Superfamily: | †Allosauroidea |

Muséum National d'Histoire Naturelle (MNHN, Paris), and the anterior part of a left maxilla, described by Sauvage in 1882, was found through a Parisian fossil dealer in the late 20th century and purchased by Christian de Muison, a paleontologist at the MNHN. The casts and the incomplete maxilla allowed for a reevaluation of *Erectopus* by Ronan Allain in 2005, which determined that the correct taxonomic name for the material is *E. superbus*, as nothing indicated that Sauvage had limited the holotype to the original teeth. The recovered maxilla has been designated a lectotype, and the casts of Pierson's specimen has become the plastotype for the taxon. The plastotype includes a partial right manus, the left femur, left calcaneum, the proximal and distal halves of the left tibia, and right metatarsal II. The combined inventory number for the syntypes is MNHN 2001-4.

| | |
|---|---|
| Genus: | †*Erectopus* von Huene, 1923 |
| Species: | †***E. superbus*** |
| **Binomial name** | |
| †***Erectopus superbus*** (Sauvage, 1882) [originally *Megalosaurus*] | |
| **Synonyms** | |
| ▪ *Megalosaurus superbus* Sauvage, 1882<br>▪ *Erectopus sauvagi* Huene, 1932 | |

Based on the morphology of the distal end of the tibia and the inferred morphology of the astragalus, Allain (2005, p. 83) placed *Erectopus superbus* within the Allosauroidea (a concept equivalent to Carnosauria, a term some researchers prefer). It is the third youngest carnosaur known from the European Lower Cretaceous, after the "Montmirat theropod" (Valanginian) of southern France and *Neovenator salerii* (Barremian) from the Isle of Wight.

# Diagnosis

Allain (2005 pp. 75–76) diagnoses *Erectopus superbus* as follows: "Rounded anterior ramus of maxilla; slender neck of femur; posterior curvature of proximal half of femur; anterodorsal edge of calcaneum dorsally projected; calcaneum twice as long as deep vertically; posteromedial process for tibia on articular surface of astragalus; length of second metatarsal equal to half the length of femur; lateral margin of proximal end of second metatarsal regularly concave."

Allain estimated the weight at two hundred kilogrammes. In 2016 it was estimated to be 5 meters (16 ft) in length and 315 kg (694 lbs) in weight.[1]

# References


1. Molina-Pérez & Larramendi (2016). *Récords y curiosidades de los dinosaurios Terópodos y otros dinosauromorfos*. Barcelona, Spain: Larousse. p. 260.

- Barrois, C., 1875, "Les reptiles du terrain Crétacé du nord-est du Bassin de Paris", *Bulletin scientifique, historique et littéraire du Nord*, **6**: 1-11
- Sauvage, H.-É., 1876, "Notes sur les reptiles fossiles", *Bulletin de la Société Géologique de France*, **4**: 435-442
- Sauvage, H.-É., 1882, "Recherches sur les reptiles trouvés dans le Gault de l'est du bassin de Paris", *Mémoires de la Société Géologique de France, série 3* **2**(4): 1-42
- Huene, F. von, 1923, "Carnivorous Saurischia in Europe since the Triassic", *Bulletin of the Geological Society of America* **34**: 449-458
- Huene, F. von, 1926. The carnivorous Saurischia in the Jura and Cretaceous formations, principally in Europe. *Revista del Museo de la Plata* 29: 35-167.
- Huene, F. von, 1932. Die fossile Reptil-Ordnung Saurischia, ihre Entwicklung und Geschichte. *Monographien zur Geologie und Palaeontologie*, ser. 1: 1-361.

- Allain, R. 2005. The enigmatic theropod dinosaur *Erectopus superbus* (Sauvage, 1882) from the Lower Albian of Louppy-le-Château (Meuse, France). in Carpenter, K. 2005. *The Carnivorous Dinosaurs*, Indiana University Press: 72-86.

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